

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Currently amended): An interconnection element comprising:

a first element material adapted to be coupled at a first end to a substrate, a second end of the first element being releasable from the substrate; and

a second different element material coupled to the first element material,
wherein one of the first element material and the second element material is transformable in response to an external stimulus such that, while the second end of the first element material is released from the substrate, the interconnection element maintains a first geometric shape before application of the external stimulus and changes to a second geometric shape in response to the application of the external stimulus, and the second geometric shape is different than the first geometric shape, and

wherein a transformation of the one of the first element material or the second element material by the external stimulus is permanent such that removal of the external stimulus does not result in the interconnection element returning to the first geometric shape.

Claim 2 (Original): The interconnection element of claim 1, wherein the interconnection element is of a size suitable for directly contacting a semiconductor device.

Claim 3 (Canceled):

Claim 4 (Previously presented): The interconnection element of claim 1, wherein application of the external stimulus to the one of the first element material or the second element material changes a volume of the one of the first element material or the second element material.

Claim 5 (Previously presented): The interconnection element of claim 4, wherein the second element material overlies the first element material and, in response to the external stimulus, the volume of the second element material increases.

Claim 6 (Previously presented): The interconnection element of claim 1, wherein the external stimulus comprises heat.

Claim 7 (Previously presented): The interconnection element of claim 4, wherein application of the external stimulus to the one of the first element material or the second element material decreases a volume of the one of the first element material or the second element material.

Claim 8 (Previously presented): The interconnection element of claim 1, wherein each of the first element material and the second element material is transformable in response to an external stimulus.

Claim 9 (Previously Presented): The interconnection element of claim 1, wherein at least one of the first element material and the second element material are introduced by plating.

Claim 10 (Original): The interconnection element of claim 1, wherein at least one of the first element material and the second element material are introduced by sputtering.

Claim 11 (Original): The interconnection element of claim 1, wherein at least one of the first element material and the second element material are introduced by electroless plating.

Claim 12 (Currently Amended): The interconnection element of claim [[3]] 1, wherein the first element material comprises palladium or its alloy.

Claim 13 (Previously Presented): The interconnection element of claim 4, wherein the first element material is an alloy comprising palladium/cobalt and an activation layer comprises one of copper and nickel.

Claim 14 (Original): The interconnection element of claim 13, wherein the second element material further comprises nickel.

Claim 15 (Original): The interconnection element of claim 13, wherein the second element material comprises a nickel alloy.

Claim 16 (Previously Presented): The interconnection element of claim 1, wherein the one of the first element material and the second element material changes shape to a predetermined shape in response to the external stimulus.

Claim 17 (Previously Presented): The interconnection element of claim 16, wherein the second element material changes shape to a predetermined shape in response to the external stimulus, and the second element material overlies the first element material.

Claim 18 (Previously presented): The interconnection element of claim 1, wherein one of the first element material and the second element material comprises an inherent stress and the external stimulus reduces the inherent stress.

Claim 19 (Previously presented): The interconnection element of claim 18, wherein the inherent stress comprises a tensile stress.

Claim 20 (Previously presented): The interconnection element of claim 19, wherein the external stimulus comprises heat.

Claim 21 (Previously presented): The interconnection element of claim 18, wherein the inherent stress comprises a compressive stress.

Claims 22-82 (Canceled)

Claim 83 (Previously presented): The interconnection element of claim 1, wherein the overall thickness of the interconnection element is between 1 and 500 μm .

Claim 84 (Previously presented): The interconnection element of claim 1, wherein the overall thickness of the interconnection element is greater than 25 μm .

Claim 85 (Previously presented): The interconnection element of claim 1, wherein the overall thickness of the interconnection element is about 28 μm .

Claim 86 (Previously presented): The interconnection element of claim 1, wherein the first element material has a thickness between 1 and 3 μm .

Claim 87 (Previously presented): The interconnection element of claim 1, wherein the first element material has a thickness of about 5 μm and the second element material has a thickness between about 3 and 6 μm .

Claim 88 (Previously presented): The interconnection element of claim 1, wherein the first element material has a thickness between about 12 and 25 μm .

Claim 89 (Previously presented): The interconnection element of claim 1, wherein the overall thickness of the interconnection element is greater than 1 μm .

Claim 90 (Previously presented): The interconnection element of claim 1, wherein the one of the first element material and the second element material changes size to a predetermined size in response to the external stimulus.

Claim 91 (Previously presented): The interconnection element of claim 90, wherein the second element material changes size to a predetermined size in response to the external stimulus, and the second element material overlies the first element material.

Claim 92 (Previously presented): The interconnection element of claim 1, wherein the interconnection element is electrically conductive, and while in the second geometric shape, a free end of the interconnection element is disposed to contact an electronic component and thereby provide an electrical connection between the substrate and the electronic component.

Claim 93 (New): The interconnect element of claim 1, wherein one of the first element material and the second element material is a shape memory alloy.

Claim 94 (New): The interconnect element of claim 1, wherein, in the first geometric shape, the interconnection element is substantially planar between a first portion of the first element material that includes the first end and a second portion of the first element material that includes the second end, and in the second geometric shape, the interconnection element comprises a curve between the first portion and the second portion.

Claim 95 (New): The interconnect element of claim 1, wherein, in the first geometric shape, the interconnection element is substantially parallel to the substrate between a first portion of the first element material that includes the first end and a second portion of the first element material that includes the second end, and in the second geometric shape, the interconnection element curves away from the substrate between the first portion and the second portion.